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XXXVII. *Extracts from the* MINUTE-BOOK *of the* LINNEAN  
SOCIETY *of* LONDON.

1827.

Nov. 6. THOMAS BELL, Esq., was chosen by ballot to fill up the vacancy in the Council, occasioned by the death of Samuel Lord Bishop of Carlisle, the Society having been specially summoned for the purpose of filling up such vacancy.

Nov. 20. Mr. Brookes, F.L.S., exhibited specimens of *Gypætos barbatus*, two species of *Larus*, and a gigantic variety of the Rabbit (*Lepus Cuniculus*, Linn.).

Mr. Lambert, V. P., exhibited cones of *Pinus sylvestris*, Linn., found at considerable depths in the peat-bogs of Armagh, Ireland, in perfect preservation.

The Secretary read a letter from John Cresswell, Esq., F.L.S., to Joseph Sabine, Esq., F.R.S. and L.S., informing him that a fish unknown to the oldest fishermen had been taken in the river Exe, weighing one hundred weight, proving identical with that known at Gibraltar by the Spanish name of Umbrina (*Sciæna cirrhosa*, Linn.).

Dec. 4. Mr. Dillwyn, F.L.S., exhibited a series of specimens

mens of the *Ianthina fragilis* of Lamarck, the *Helix Ianthina* of Linnæus, collected from Oxwich Bay, to the west of Swansea, accompanied by a letter stating that the same shell, which is abundant in the Mediterranean, had been found once before there in some abundance. Mr. Dillwyn considered the recording such facts of importance, as being likely to throw some light on the under-currents of the ocean.

Dec. 18. Mr. Bell exhibited three undescribed species of Land Tortoises, two of them very much resembling *Testudo geometrica*. To one of the present species, which Mr. Bell certainly thinks furnished La Cépède with his erroneous description of *T. geometrica*, he has given the name of *T. actinodes*. It differs in the absence of the small *single plate* at the anterior part of the margin. To another specimen, with conical scutæ, he has assigned the specific name of *tentoria*; and to the third specimen (which he has had alive for some time,) he has given the name of *pardalis*: this, although resembling the *Testudo indica*, differs from it not only in colour, but also in the less revolute margin, and in the situation of the *areolæ* of the costal plates, which, instead of being exactly central as in *T. indica*, are in this species placed very near the superior margin.

1828.

Jan. 15. Mr. George Townshend Fox, F.L.S., exhibited from the Newcastle Museum the original specimen of the Green-headed Bunting, *Emberiza Tunstalli* of Latham, the *E. chlorocephala* of Gmelin, which now proves to be identical with *E. hortulana*, Linn.

Mr. Yarrell, F.L.S., exhibited two specimens of  
*Emberiza*

*Emberiza miliaria* of Linnæus, one of them entirely white.

March 4. Mr. George Townshend Fox, F.L.S., sent for exhibition, specimens of the following Birds, viz.

1. *Anas rutila* of Pallas, the *Anas Casarka* of Gmelin, or Grey-headed Duck of Brown's Illustrations of Zoology, t. 41. It is on the authority of this specimen that the bird has been received into the British Fauna.

2. *Loxia cantans* of Gmelin, the Brown Grosbeak of Brown's Illustrations, t. 27.

3. *Loxia ferruginea* of Gmelin, the Brown-headed Grosbeak of Latham.

4. *Loxia aurea* of Gmelin, the Gold-backed Grosbeak of Brown's Illustrations, t. 25.

These, together with the specimen of the *Loxia crassirostris*, Gm., exhibited at a former meeting, are the original authorities for the species. They formed part of the late Messrs. Tunstall and Allan's collection, which is now incorporated with the Museum belonging to the Literary and Philosophical Society of Newcastle-upon-Tyne.

The Rev. Leonard Jenyns, F.L.S., exhibited specimens of the British species of *Plecotus*, supposed to have been confounded under the name of Long-eared Bat; and also a specimen of *Vespertilio mystacinus* of Leisler, taken at Bottisham, Cambridgeshire, on the 29th of April 1827, being the second instance of its having been found in Great Britain.

March 18. In consequence of the lamented death of Sir James

Edward Smith, (the President of the Society,) the Meeting was adjourned to Tuesday the first of April.

*April 15.* Read a letter, addressed to the Secretary, from Charles Lucien Bonaparte, Prince of Musignano, F.M.L.S., and dated on board the Delaware, near Gibraltar, March 20th, 1828, containing some curious facts relative to the migratory habits of certain species of *Hirundo* and *Sylvia*. The following are extracts: "In closing my letter I happen to think that the following fact may be thought interesting to some of your ornithological gentlemen. A few days ago, being 500 miles from the coasts of Portugal, 400 from those of Africa, &c., we were agreeably surprised by the appearance of a few Swallows (*Hirundo urbica* and *rustica*). This, however extraordinary, might have been explained by an easterly gale, which might have cut off the swallows migrating from the main to Madeira, only 200 miles distant from us; but what was my surprise, in observing several small warblers hopping about the deck and riggings. These poor little strangers, exhausted as they were, were soon caught and brought to me. The following is a list of the species:—1. *Sylvia Trochilus*. 2. *Sylvia Erithacus*, Lath. (*Tithys*, Temm.). 3. *Sylvia suecica*, or rather a similar species which I have already received from Egypt and Barbary. 4. A species new to Europe, and perhaps even a non-descript, having the plumage of an *Anthus*, and which I think belongs (as *Sylvia Cisticola* and others) to the *hitherto African* genus *Malurus*. This, however, must rest undecided, my specimen

specimen having lost its tail, which had been pulled off by the sailor who caught the bird.”

May 6. Mr. Brookes, F.L.S. exhibited a specimen of the cream-coloured Courier (*Cursorius isabellinus*, Temm.), said to have been shot in Great Britain; and Mr. G. B. Sowerby exhibited a specimen of a new species of *Cypræa*, which he has named *C. Leucodon*.

May 24. The Council having had an offer of the late respected President's Collections in Natural History, consisting of the Collections and Library of Linnæus and his Son, and the President's own Collections and Library, submitted the proposal to the consideration of the Society,—when a subscription was entered into by the undermentioned members for the purpose of purchasing the same; viz.

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Richard

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June

June 17. Read a Letter, addressed to the Secretary, from William Cooke, Esq., on the Preservation of Vegetable Substances in a Solution of Muriate of Soda,—of which the following is an extract. “ On the 30th of October 1826, Mr. B. M. Forster brought to me a specimen of *Clavaria muscoides* of Sowerby, with a desire that I would preserve it in the same way that I preserve anatomical preparations.—(*Vide Med. and Phys. Journ.* March 1816.) I put it into brine a little below saturation, suspending it by a delicate thread of silk, and closing the bottle by means of glass. Since that time it has remained in the solution, and, with the exception of having become a little deeper in colour, it is unchanged. As spirits are not only expensive, but usually deprive plants of all colour, the discovery of a cheap and effectual solution for the preservation of plants is a desideratum.”

1829.

April 7. Mr. Brookes, F.L.S., exhibited a living specimen of *Lacerta ocellata*.

The President read the following extracts from the Minutes of Council, dated February 24, viz.

“ Resolved,—

“ That the By-Laws contained in Sections 2, 3, and 4, Chapter II. of the By-Laws of the Society, as also the By-Law made on the 18th day of February 1823, (all of which said By-Laws relate to the admission and annual fees to be paid by Fellows,) be revoked and repealed; and that the following By-Laws be substituted, viz.

“ All Fellows elected after the 24th day of May

1802, and before the 24th day of May 1829, who shall have already paid their admission fees, but have not paid Twenty Guineas in lieu of all annual payments, shall pay to the use of the Society the annual contribution of Two Guineas as heretofore. Provided, however, that every such Fellow may at any time compound for all future annual payments, by paying the said composition of Twenty Guineas, including the annual contribution which may be due at the time such composition shall be paid.

“All Fellows who shall be elected after the 24th day of May 1829, shall, before they be admitted, pay to the use of the Society the sum of Six Pounds for their admission fee; and if any person refuse or fail to pay the said sum, his election shall be void, unless the same be remitted, in whole or in part, by special order of the Council.

“Every Fellow elected after the 24th day of May 1829, shall, besides the admission fee, further contribute towards the funds of the Society, previous to his admission, by paying the sum of Thirty Pounds in lieu of all future payments; or he shall sign an obligation for the regular payment of Three Pounds per annum to the Society so long as he shall continue a Fellow.

“Every such Fellow so elected may at any time compound for his future contributions, by paying the sum of Thirty Pounds in one year, instead of the annual contribution for that year; in which case, his obligation to make annual payments shall be void. Provided, nevertheless, that in case any Fellow be not usually resident within the United Kingdom of Great Britain

Britain and Ireland, such person shall not be permitted to enter into an obligation for the payment of annual contributions, but shall, within two months after his election, or such other time as the Council shall permit, and before he be admitted, pay, or cause to be paid, into the hands of the Treasurer, the sum of Thirty Pounds, in lieu of such contributions.

“ Resolved,—

“ That it be proposed to the General Meeting of April 7th, for confirmation to revoke and repeal the By-Laws contained in Sections 2, 3, and 4, of the Second Chapter of the Society's By-Laws, and also the By-Law relative to the payment of Fellows, made on the 18th day of February 1823, and to substitute in their stead the By-Laws above specified ; and that they be read at the above and following General Meeting, and be balloted for in the manner directed by the By-Laws of the Society.”

The President then gave notice that those alterations in the By-Laws will be decided upon by Ballot on Tuesday the 5th of May.

*May 5.* The alterations of the By-Laws contained in Sections 2, 3, and 4, of Chapter II. of the Society's By-Laws, and also the By-Law relative to the payment of Fellows, made on the 18th day of February, 1823, having been read at the two last General Meetings, as directed by the Charter, were balloted for and confirmed.

*Nov. 17.* The Vice-President, in the Chair, gave notice that the Library will be open on Mondays, Tuesdays, and  
Thursdays,

Thursdays, from 12 till 4 o'clock, and that the Museum will be open during the same hours on Wednesdays and Fridays.

1830.

*April 20.* Mr. N. B. Ward, F.L.S., exhibited a remarkable specimen of exfoliation of the entire hand and foot, which happened five different times in the same person from fever.

*June 1.* Mr. John Gould, A.L.S., exhibited, by permission, the Skeleton of the *Camelopardalis Giraffa* belonging to His Majesty.

Mr. William Pamplin, jun., A.L.S., exhibited a Fruit of the *Carica Papaya*, which ripened in a hot-house belonging to John Barker, Esq., at Aylesbury.

*June 15.* Read an extract of a Letter from Mrs. Smith, dated Moradabad, July 20th, 1829, to a gentleman in Somersetshire, giving an account of a quantity of Fishes that fell in a shower of rain at that place. Many were observed by Mrs. Smith from the window of her residence, springing about on the grass immediately after the storm. The letter was accompanied by a drawing taken on the spot, which represents a small species of *Cyprinus*, two inches and a quarter in length, green above, silvery white below, with a broad lateral line of bright red.

1831.

*Feb. 15.* Mr. Westwood, F.L.S., exhibited drawings of two Insects illustrating the connexion between the Coleopterous families *Prionidæ* and *Lucanidæ*, in opposition to the tarsal system.

*March*

*March* 1. Read the following Letter from Dr. James Lindsay, addressed to Roderick Impey Murchison, Esq. F.R.S. & L.S. &c., giving an account of the *Helix obvoluta* of Lamarck being found, apparently indigenous, in Hampshire.

“ Sir,—Last May, when searching for land shells, I was surprised to meet with the *Helix obvoluta*, hitherto considered a foreign species, and, I believe, never before noticed in Great Britain.

“ I discovered it, along with other *Helices*, such as the *Helix nitida* and *rufescens*, amongst the moss near the roots of trees in Ditcham Wood, near Buriton, Hants. This shell is found for a considerable distance along the chalk escarpment of the South Downs facing to the north ; and, although more rare than the other species above mentioned, I have collected above twenty individuals.

“ Lamarck describes the French shell as having the margin of the lip white ; but in the Hampshire specimens, when fresh, that part is tinged with red. Lamarck takes no notice of the smooth, tooth-like processes on the inner side of the lip, which in this species are always present. The aperture is triangular ; the mouth a little reflected, forming a distinct sinus externally, and in every other respect answering to the Lamarckian description.

“ Should you consider these observations worthy the notice of the Linnean Society, I shall feel gratified in your presenting them.

“ I am, your most obedient Servant,

“ JAMES LINDSAY.

“ 10th November, 1830,  
Nursted House, near Petersfield.”

*May*

May 3. Read the following Letter, addressed to the Secretary by John Curtis, Esq., F.L.S., containing remarks on the habits of some Land Shells :

“ Grove Place, May 2, 1831.

“ Dear Sir,—On my return from France I brought home some Land Shells, which I collected near the celebrated fountain of Petrarch at Vaucluse, on the 8th of last July, at which time they were close packed in a pill-box ; and from the high temperature of that part of France, and being kept for several weeks in my trunk, and afterwards in a dry place at home, they appeared, as might be expected, quite dead.

“ I was induced however, a few days since, to try if they could be re-animated, although I almost thought it an useless experiment. I put the shells into an earthen vessel, close covered, and containing some wet moss, when, to my astonishment, in less than twenty-four hours these little animals were reanimated and crawling about, after having been shut up without food or moisture for nine months.

“ The shells appear to be the *Pupa tridens* and the *Clausilia rugosa*, which renders it more remarkable, since they are species destitute of opercula. I observed that only one of the shells was adhering to another, and the others were quite loose in the box.

“ It is not only the extraordinary fact of these little animals being able to remain so long in a torpid state, that has induced me to request that you will do me the favour to lay these observations before the Linnean Society ; but I think it may be of service to those who collect shells, to know that the species inhabiting the land may be preserved for so long a period ; for it may  
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in many instances enable those conchologists who wish to describe and draw the inhabitants of shells, to accomplish that desirable object, and probably, by securing them in a well-stopped bottle, they might be kept alive much longer, and be transported from very remote parts of the globe.

“ I remain, &c.

“ JOHN CURTIS.

“ P.S. I have been informed by Mr. Lyell that some shells brought from South America by Lieutenant T. Graves, were seventeen months without food, and are now alive and inhabiting their native plants in the conservatories of Messrs. Loddiges at Hackney.

“ But shells closed by an operculum have been known to remain thus hermetically sealed in cabinets for very long periods,—it has been said for forty years,—and afterwards been reanimated by moisture.”

Some live specimens of the species referred to in the letter were exhibited at the Meeting.

*Dec. 6.* Read a Letter addressed to the Secretary by John Blackwall, Esq. F.L.S., correcting his representation, in his Notice of several recent Discoveries in the Structure and Economy of Spiders, and Remarks on the Pulvilli of Insects, respecting the mode by which insects are supported on the sides of highly polished surfaces.

In experimenting upon the House-fly, he observed that individuals frequently remained fixed to the sides of an exhausted glass receiver after they had entirely lost the power of locomotion, and an evident distention

of the abdomen had been occasioned by the exhaustion of the aëriform fluids it contained. To detach them from those stations, the employment of a small degree of force was found requisite.

In prosecuting this subject, clean “ phials of transparent glass, containing spiders and various insects in the larva and imago states, capable of walking on their upright sides, were breathed into till the aqueous vapour expelled from the lungs was copiously condensed on their inner surface. The result was remarkable. The moisture totally prevented those animals from obtaining any effectual hold on the glass; and the event was equally decisive if a small quantity of oil was substituted for the aqueous vapour. A similar consequence ensued also, when the flour of wheat, or finely pulverised chalk, or gypsum, was thinly strewn on the interior surface of the phials, the minute particles of those substances adhering to the tarsal brushes of the spiders, the pulvilli of the perfect insects, and the under side of the feet of the larvæ. These facts, far from corroborating the mechanical theory, appeared quite inexplicable, except on the supposition that an adhesive secretion is emitted by the instruments employed in climbing. The next point to be determined, therefore, was whether spiders, and insects in the larva and imago states, when moving in a vertical direction on clean glass, leave any visible track behind them. Careful and repeated examinations, made with lenses of moderately high magnifying powers, in a strong light, and at a favourable angle, speedily convinced me that my conjecture was well founded, as I never failed to discover unequivocal evidence of its truth; though

though in the case of the spiders considerable difficulties presented themselves, in consequence of the exceedingly minute quantity of adhesive matter emitted by the brushes of those animals. On submitting this secretion to the direct rays of the sun, in the month of July, and to brisk currents of air, whose drying power was great, I ascertained that it did not suffer any perceptible diminution by evaporation under those circumstances.

“ Now it is reasonable to infer, from the foregoing researches, that the hair-like appendages constituting the brushes of spiders, and occurring in such profusion on the inferior surface of the pulvilli of insects, are tubular. The delicate membrane also, on the under side of the prolegs, and the tarsi of the perfect legs of various larvæ capable of traversing polished perpendicular bodies, without the aid of lines produced by a spinning apparatus, must be provided with numerous pores, or minute papillæ, from which an adhesive secretion is emitted. Some larvæ which are not supplied with prolegs, those of the *Coccinellæ* for example, have the inferior part of the tarsi of their perfect legs thickly covered with hair-like appendages resembling in figure, and in the function they perform, those on the pulvilli of insects in the imago state; while others, altogether destitute of legs, emit a viscid mucus from both their extremities, and by advancing and attaching each alternately, are thus enabled to ascend smooth bodies with facility.

“ According to my observations, the instrument is composed of several branched membranous papillæ included in a common envelope. They are extremely

flexible and extensile, and, either separately or collectively, can be protruded beyond the caudal segment, or retracted within it, at the pleasure of the animal. Their efficiency as a cleaning apparatus, and an organ of adhesion and progression, depends principally upon the mucus they emit, which is secreted in great abundance, and not upon the power of producing a vacuum. When this instrument is applied to the body of the insect, any extraneous matter immediately becomes attached to it, and the impurities thus collected are ultimately expelled by a fresh discharge of mucus and a peculiar motion of the papillæ."